

VPNware™ 3.0

## VSU™ Series of VPN Gateways

Making VPNs  
Deployable,  
Manageable,  
and Scalable



VSU-7500

VPNware™ VPN Service Units (VSUs) are dedicated, hardware-based VPN gateways that enable secure data communications over public IP networks such as the Internet. As a building block of the VPNware System,

VSUs provide standards-based IPSec services that enable organizations to securely connect remote users, branch offices, partners, and customers to enterprise networks. VSUs provide unmatched levels of performance, manageability, and security that allow organizations of all sizes to take full advantage of the cost savings, productivity, and business relationship-enhancing benefits of virtual private networks.

### Fortified Solutions Deliver Private Data Communications

VSUs give you the confidence to run your business-critical data and applications across public IP networks. How? By delivering IPSec 3DES encryption, data integrity and authentication, and key management. VSUs



*Building Blocks for Virtual Private Networking™*

support a range of two-factor user authentication methods — RADIUS servers, RSA SecurID™ tokens, SmartCards, and digital certificates — so you can be sure of who's accessing your VPN.

All VSUs offer additional robustness via resilient VPN tunneling. VSUs continually sense endpoint availability and automatically transition tunnels to a secondary VSU in the event of a data link failure. The VSU-7500 offers an additional level of fault tolerance by providing high-availability hardware features such as redundant Ethernet interfaces, IPSec processors, power supplies, and cooling fans. The complete VSU series is delivered in tamper-evident enclosures that meet the FIPS 140-1 Level 2 standard.



VPN

# VSU Series of VPN Gateways



VSU-5000

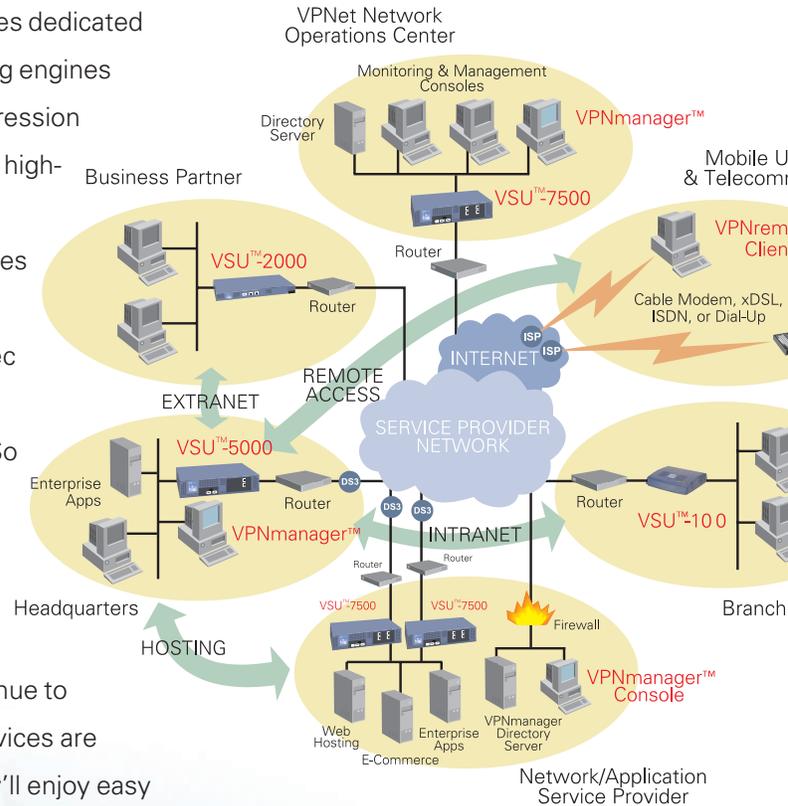
## Wire Speeds Keep Networks and Users Performing

The VSU series of VPN gateways gives you all the benefits of VPNs without creating the performance bottlenecks that slow your network to a crawl. Because unlike firewall- or router-based VPN solutions, each VSU features dedicated IPSec packet-processing engines and real-time data compression

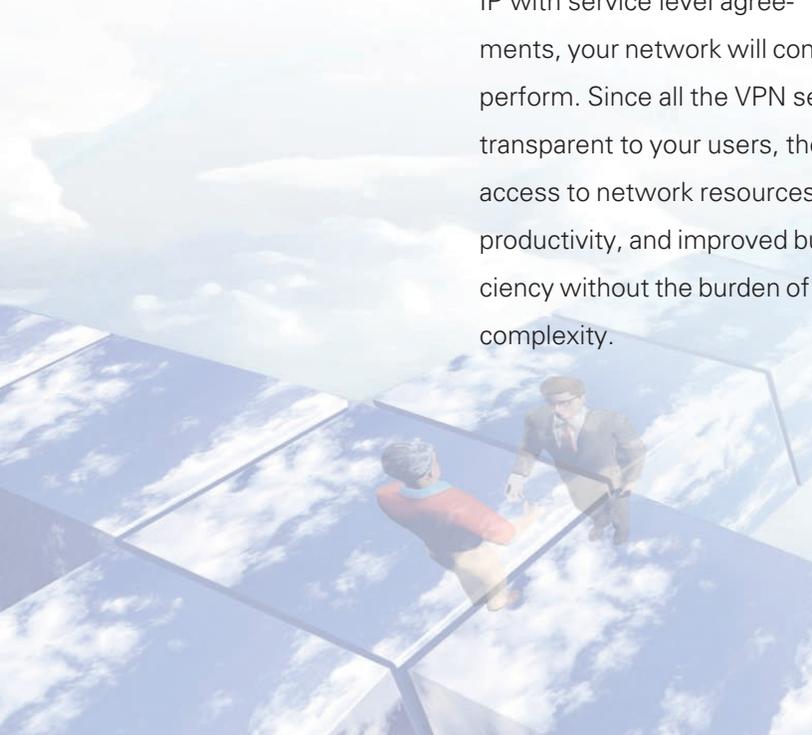
designed specifically to handle high-bandwidth VPN services. The result? Wire-speed performances ranging from 16 Mbps to 100 Mbps for 3DES-encrypted IPSec traffic, and bridging of non-VPN traffic at even higher speeds. So whether you're managing thousands of remote access users, or delivering voice-over-IP with service level agreements, your network will continue to perform. Since all the VPN services are transparent to your users, they'll enjoy easy access to network resources, increased productivity, and improved business efficiency without the burden of unnecessary complexity.

## Scalable Architecture Enables Flexible Networking

Your network should enable, not inhibit, the growth of your business. The VSU series of VPN gateways, with its VPNos™ operating system, provides a security solution that scales with your networking needs.



Scalability starts with industry-leading, IPSec performance and ICASA-certified interoperability. Scalability also means removing the bottlenecks associated with managing large remote user groups. Because the associated building and re-keying of IPSec tunnels is computationally intensive, VSUs feature a dedicated engine to process IPSec security associations.





## VSU-100



Making VPNs scalable means more than just compatibility, tunnel processing power, and throughput. An additional challenge is how to quickly and easily update remote site and user configurations for large or complex VPNs. VSUs accomplish this by leveraging the scalable client/server architecture of VPNmanager™, which is built on an LDAP directory server backbone. Using VPNmanager, policy changes are made at the directory server rather than locally at each VSU. Then, they're securely propagated via a fast and efficient communication protocol, with multiple devices being updated simultaneously.

### Easy Deployment and Network Integration

As a layered network security solution, VSUs integrate easily with existing firewalls, routers, and servers on enterprise networks, as well as provide an integrated interface to service provider managed IP backbones. VSUs support full-featured dynamic routing and QoS-enabled networking capabilities, making them easy to install, configure, and maintain in networks of all sizes and complexity.

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Desktop  
Users

Office

	VSU-100	VSU-2000	VSU-5000	VSU-7500
<b>Description</b>	Low-cost, entry-level VPN Gateway	Mid-range VPN gateway	High-capacity VPN gateway	High-availability VPN gateway with hardware redundancy
<b>Simultaneous Tunnels</b>	Up to 100	Up to 1000	Up to 5,000	Up to 7,500
<b>Throughput</b>	16 Mbps	45 Mbps	90 Mbps	100 Mbps
<b>Typical Users</b>	Small enterprise, branch/partner office, or home office	Mid-sized enterprise, branch/partner office	Large enterprise	Large enterprise, managed VPN data service provider
<b>Bandwidth</b>	Fractional T1/E1, xDSL, cable modem, ISDN	Up to T3/DS3	Up to Full Duplex T3/DS3	Up to Line Speed Fast Ethernet
<b>Applications</b>	Remote access up to 100 users, intranets, extranets	Remote access up to 600 users, intranets, extranets	Remote access up to 5,000 users, high bandwidth intranets and extranets	Remote access up to 7,500 users, high bandwidth intranets and extranets, application hosting, managed VPN services requiring hardware redundancy

### Integrated Firewall Protection

All VSUs provide a comprehensive set of firewall features based on stateful inspection and packet filtering technologies. The advanced firewall functionality further enhances the protection of private networks by providing a high level of security policy granularity and a rich set of attack prevention mechanisms. VPNmanager integrates both firewall and VPN policy management within a simple-to-use GUI-based Java console, making the VSUs a complete perimeter security appliance without sacrificing ease-of-use.



VSU-2000

# VPNware

## VSU Series of VPN Gateways

### Features

#### Data Encryption

- DES encryption (56-bit key)
- Triple DES (EDE-CBC) encryption<sup>1</sup> (168-bit key)

#### Data Authentication

- Keyed MD5™ AH Message Digest Algorithm (RFC 1321)
- HMAC-MD5 and HMAC SHA-1 (RFC 2104)

#### User Authentication

- LDAP
- RADIUS
- RSA SecurID tokens (including New Pin/Next Token Modes)
- X.509v3 digital certificates (IKE key management)

#### Compression

- Stac™ Lempel-Ziv hardware data compression

#### IPSec Security Services

- AH - Authentication Header (RFC 2402)
- ESP - Encapsulating Security Payload (RFC 2406)
- Tunnel and Transport Modes
- Full IPSec compliance (RFC 1825-1829, 1851, 2401-2410, 2412, 2451)

#### Key Management

- IKE key management: key updates configurable starting from 60 seconds (RFC 2409)
- SKIP key exchange: keys updated every 30 seconds
- Manual key exchange

#### Firewall

- Stateful inspection-based firewall providing strong attack prevention against DOS (denial of service attack), Syn flood, ICMP flood, port scan and many more.

#### Network Address Translation (NAT)

- Supports static, dynamic, and port mapping
- Client IP address pool for remote access clients

#### Quality of Service

- DiffServe packet classification (RFC 2474)

#### Routing Support

- Default router auto-discovery using ICMP packets
- RIPv1 and RIPv2 routing for VPN traffic
- Static routes

#### Digital Certificates

- X.509v3 for management and IPSec communication
- PKCS#7/10/11/12
- Compatible with Entrust, RSA, Baltimore, VeriSign, IBM, Microsoft, Netscape, and Xcert certificate authorities

#### System Management

- Configuration and monitoring via VPNmanager™
- Monitoring from any application with SNMPv1
- Configuration traffic secured through SSL
- Syslog event and usage logging

#### Remote Client Support

- VPNremote™ Client (Windows® 95/98, Windows NT, Windows 2000)
- Simultaneous VPN and Internet access (split tunneling)
- Compatible with major Windows dialers

#### Physical Security

- Tamper-evident enclosure (FIPS 140-1 Level 2)

### Specifications

	VSU-100	VSU-2000	VSU-5000	VSU-7500
<b>Dimensions</b>	- 7.75" x 6.5" x 1.9" (19.7 cm x 16.5 cm x 4.8 cm) - Wall mountable	- 17.5" x 11.5" x 1.75" (44.5 cm x 29.2 cm x 4.45 cm) - 1U high - 19" rack mountable	- 17.0" x 13.5" x 3.5" (43.2 cm x 34.3 cm x 8.9 cm) - 2U high - 19" rack mountable	- 17.0" x 14.9" x 3.5" (43.2 cm x 38.0 cm x 8.9 cm) - 2U high - 19" rack mountable
<b>Weight</b>	2.75 lbs. (1.24 Kg)	8 lbs. (3.6 Kg)	17 lbs. (7.7 Kg)	20 lbs. (9 Kg)
<b>LAN Interface</b>	Two 100BaseT Ethernet ports	Two 100BaseT Ethernet ports	Two 100BaseT Ethernet ports	Four 100BaseT Ethernet ports
<b>Management Interfaces</b>	RS-232 and 100BaseT Ethernet	RS-232 and 100BaseT Ethernet	RS-232 and 100BaseT Ethernet	RS-232 and 100BaseT Ethernet
<b>High Availability Features</b>				Redundant hardware features: - Ethernet interfaces - Encryption processors - Power supplies (hot-swappable) - Cooling fans (hot-swappable)
<b>Power Requirements</b>	- 100-240 VAC - Input frequency: 60/50 Hz - AC current input 1.0-0.5 Amps	- 100-240 VAC - Input frequency: 60/50 Hz - AC current input: 1.0-0.5 Amps	- 100-240 VAC - Input frequency: 60/50 Hz - AC current input: 2.5 Amps	- 115-230 VAC - Input frequency: 60/50 Hz - AC current input: 6.0-3.0 Amps
<b>Operating Environment</b>	- Temperature: 32° to 104° F, 0 to 40°C - Relative Humidity: 5 to 90% (non-condensing) - Altitude: 0-12,000 feet, 3660 meters			
<b>Safety Certification</b>	UL, CSA, CE, CB Scheme			
<b>EMI/RFI</b>	- FCC Part 15, Class A, CISPR 22/85A - VCCI, BSMI			
<b>Warranty</b>	12-month warranty. Extended support contracts available.			
<b>Part Numbers</b>	P/N 11-0501: VSU-100 3DES <sup>1</sup> encryption P/N 11-0502: VSU-100 DES encryption P/N 11-0503 VSU-100R 3 DES encryption/Remote Access Services P/N 11-0504 VSU-100R DES encryption/Remote Access Services	P/N 11-0601: 3DES <sup>1</sup> encryption P/N 11-0602: DES encryption	P/N 11-0701: 3DES <sup>1</sup> encryption P/N 11-0702: DES encryption	P/N 11-0801: 3DES <sup>1</sup> encryption P/N 11-0802: DES encryption



Building Blocks  
for Virtual

Private Networking™

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<sup>1</sup> U.S. export regulations restrict the use of strong cryptography for certain applications and in certain countries. Contact VPN Technologies or your VPN Technologies representative for a current list of controlled and uncontrolled applications and territories.